

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendment and following remarks.

Initially, the disclosure in the first full paragraph on page 5 of the Specification has been amended to correct a spelling error.

The patentability of the presently claimed invention, as set forth in the claims under consideration, over the disclosure of the reference relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1, 2, 4, 7-13, 16-20, 22, 25, 26, 28, 30-32, 34 and 37-40 under 35 U.S.C. 102(b) as being anticipated by Komada (JP 2000-200614) is respectfully traversed.

The Komada reference was cited in Applicants' IDS of September 3, 2004. The IDS was accompanied by a copy of the reference, together with an English abstract and full English language translation thereof. Applicants also note that the Komada reference is cited and discussed in the present specification in the paragraph bridging pages 5 and 6, as well as the paragraph bridging pages 8 and 9. The lead inventor named in the reference is also named as an inventor in the present application.

In the Office Action, the Examiner states:

"Komada (JP 2000-200614) discloses an electrode of a solid oxide fuel cell wherein the electrode comprises a skeleton constituted of a porous sintered compact having a three dimensional network structure, the porous sintered compact being made of an oxide ion conducting material and/or a mixed oxide ion conducting material;

grains made of an electron conducting material and/or a mixed oxide ion conducting material are adhered onto the surface of said skeleton; and

said grains are baked inside the voids of said porous sintered compact under the conditions such that the grains are filled inside the voids (Komada's claim 1) (Emphasis Added)."

However, the above-described underlined subject matter is not shown or suggested in any way in the Komada reference. More specifically, the underlined portion is not seen in claim 1 of the Komada reference, although the Examiner states that also the underlined portion is described in Komada's claim 1, see lines 1-2 on page 3 of the Office Action. [Applicants note that the translation of this reference submitted with their IDS does not include a translation of any of the claims of the reference.] The following, on the other hand, is an English translation of Claim 1 of the Komada reference:

"1. An electrode of a solid oxide cell, characterized in that the electrode comprises a skeleton constituted of a porous sintered compact having a three dimensional network structure, the porous sintered compact being made of an oxide ion conducting material and/or a mixed oxide ion conducting material; and grain made of an electron conducting material and/or a mixed oxide ion conducting material are adhered on to the surface of said skeleton."

Basically, as disclosed in the instant specification (page 5-6 and 8-9), the present inventors further promoted the investigation of the Komada reference for the purpose of further improving the electrode properties and thermal shock. In the present invention, as shown in Fig. 1, the skeleton 11 having a three dimensional network structure has large pores 13 formed by the gas bubble generation caused by liquid evaporation, grains 12 are adhered onto the outside surface of the skeleton 11, and the grains 12 are baked in the interior of the large pores 13 in such a condition that the grains are filled in the interior of the large pores. In this structure, as disclosed on pages 8-9 of the instant specification, the outside surface of the skeleton 11 on which the grains 12 are adhered and the large pores 13 in the network structure filled with the grains 12 constitute the electrode surface; and, as compared to the prior art technique disclosed in the Komada reference, the surface area of the electrode in the present invention is increased and hence the three-phase boundary length is drastically increased, so that a further improvement of the electrode properties can be expected.

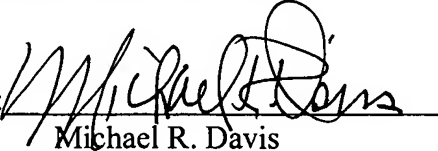
The Komada reference neither discloses nor suggests this feature of the presently claimed invention that the grains are filled inside the voids of the porous sintered compact; nor does the reference disclose the advantages achieved by this feature of the invention.

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied reference.

Therefore, Applicants submit that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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